



EARLY DEVELOPMENT INSTRUMENT

# HALTON Community Profile

2003, 2006 & 2009 Results



## About This Report

In 2009, the Our Kids Network (OKN) released *A Vision for Children in Halton Report Card* to show how the well-being of children and health of communities are promoted, supported, and protected in each neighbourhood. The Report Card included a remarkable collection of community indicators by which the progress of Halton children is measured. The indicators are organized by seven key results, known as the **Halton 7**, which represent ideal living conditions for children, youth and families in Halton.

This report focuses on one of the Halton 7 results – **Children are Learning**. One of the indicators of Children are Learning is the rate of developmental vulnerability in five-year old children. The data for this indicator is gathered through the Early Development Instrument (EDI), a population-based tool used to assess children's development in five key domains (see page 4). Examining results by these domains helps identify developmental strengths and needs within a population of children. It can also assist in determining if and where additional resources or assistance may be required. Sharing these results will help schools, communities and governments to develop policies to support healthy child development in all families.



## KEY FINDINGS OF THE 2009 EDI DATA

### KEY FINDING 1

Halton children continue to do well on the EDI measure and are doing better than the Ontario average. Halton's rate of vulnerability is lower than the provincial rate by about 3%.

### KEY FINDING 2

Halton's rate of developmental vulnerability is 24%, which represents 1220 children.

### KEY FINDING 3

Physical health and well-being is the area of child development with the highest vulnerability in Halton, a factor which has increased over time.

### KEY FINDING 4

Language and cognitive development is the area of child development showing the largest decrease in the percent of children scoring below the vulnerability cut-points since 2003.

### KEY FINDING 5

While there has been little change in the percent of vulnerable children since 2003, there has been an increase in the number of vulnerable children. The number has increased from 469 in 2003 to 547 in 2009 which represents a 17% increase in the number of vulnerable children, which is expected given the population growth in children in Halton.

### KEY FINDING 6

There is little difference in the rate of vulnerability between the four Halton municipalities. The highest rate is found in Milton (26%) and the lowest rate is found in Oakville (23%). Vulnerability rates do differ across the 21 Halton neighbourhoods. The highest rate is found in East Milton (35%) and the lowest rate is found in North West Oakville (17%).

### KEY FINDING 7

The majority of children (62%) are considered to be developmentally strong in terms of their development. Of these children, 39% are showing very high developmental skills.

### KEY FINDING 8

Over 94% of children have attended a junior kindergarten program compared to 61% in 2003.

## DESCRIPTION OF CHILDREN ASSESSED WITH THE EDI

Table 1 shows the characteristics of the children that were assessed with the EDI in 2003, 2006, 2009. These characteristics include birth date, English as a second language (ESL)<sup>1</sup>, gender and attendance in kindergarten. Look at the characteristics by year for any changes in the population of children from 2003 to 2009. If there are large differences in any of these characteristics, this could explain differences in the EDI scores between the three years.

Table 1.  
*Description of Children Assessed with the EDI*

Description of Children	Halton					
	2003		2006		2009	
	Num <sup>2</sup>	Pct <sup>3</sup>	Num	Pct	Num	Pct
Number of children with a valid EDI <sup>4</sup>	4169		4430		5096	
Percent of children born between July and December	2366	56.7	2085	47.3	2586	50.7
Percent of children with English as a second language	138	3.3	135	3.1	201	3.9
Percent of girls	2095	49.4	2151	48.8	2547	49.5
Percent of children missing more than 7 days of school (September - February)	499	11.9	566	13.3	695	14.0
Percent of children attending Junior Kindergarten	2467	60.8	3989	92.9	4738	94.4



<sup>1</sup> Children are considered ESL or are identified as having ESL status if English is not their first language and they are not fluent enough in English to easily follow the classroom educational activities.

<sup>2</sup> Number

<sup>3</sup> Percent

<sup>4</sup> An EDI score is only included in the results if the child has minimal missing data, the teacher was able to observe the children for at least six weeks and the child has no identified special needs.

## Table 1: What to Look For and Why?

1. On average, girls score better on the EDI than boys. If the percent of girls changes substantially from 2003 to 2009, this could explain differences in EDI scores between the three years of EDI results.
2. Children with ESL status are more likely to do poorly on sections of the EDI.
3. Children who are born in the last 2 quarters of the year (July - December) are more likely to score lower on the EDI.
4. Children who attended JK are more likely to score better on the EDI than those who did not.
5. Look at both the number of and the percent of children. In the case of a small number of children, large differences in percents may occur between the years. Sometimes a 20% difference can translate into only 1 or 2 children. Use caution when interpreting large percent differences.
6. Lower EDI scores have been found in children showing signs of chronic absenteeism.

## UNDERSTANDING EDI RESULTS

Each of the five domains is scored from 0 to 10; higher scores indicate stronger developmental skills. The scores are then categorized using “cut-points” to determine how well children are doing. The cut-point is the EDI score that distinguishes the children who scored in the top or bottom of the distribution. To be consistent with the rest of the province, Ontario baseline cut-points are used.<sup>5</sup> All Ontario communities are included in the calculation of the Ontario cycle-1 baseline cut-points. We use the same cut-points for all 3 years of data to allow for comparisons across time.

## EDI DOMAINS

### *Physical Health and Well-Being*

Children must be healthy, have access to adequate and appropriate nutrition and be ready to participate in school each day. A child needs to possess the necessary gross and fine motor abilities to competently complete common kindergarten and Grade 1 tasks, which include things such as controlling a pencil, turning pages without tearing pages, running on the playground, motor coordination, independence in looking after their own needs, and daily living skills.

### *Social Competence*

Children need to meet general standards of acceptable behaviour in public places, control their behaviour, cooperate with others, show respect for adult authority, and communicate feelings and needs in a socially acceptable manner.

### *Emotional Maturity*

Emotional maturity is characterized by a balance between a child’s curiosity about the world, an eagerness to try new experiences, and some ability to reflect before acting. A child who is fearful and reluctant to engage in new activities misses learning opportunities that are seized upon by a child with a positive approach to life.

### *Language and Cognitive Development*

Language and cognitive development skills refer to vocabulary size and a child’s ability to name letters and attend to the component sounds within words. Cognitive skills involve the ways in which children perceive, organize, and analyze information in their environment.

### *Communication and General Knowledge*

Children must be able to understand verbal communications with other adults and children, as well as verbally communicate experiences, ideas, wishes, and feelings in a way that can be understood by others.

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<sup>5</sup> This is the first time using the Ontario cut-points in Halton. Data from previous reports may not be the same as reported in this profile because in previous reporting of EDI results, Halton-specific cut-points have been used.



## Defining Vulnerability

### Most Vulnerable Cut-Point

Children whose EDI results fall below this cut-point are said to be vulnerable in that area of development. The Developmentally Vulnerable cut-point represents the children scoring in the bottom 10 percent of all children. Children who score below this cut-point are more likely to be limited in their development on the identified EDI domain than children who score above the cut-point.



#### *Low on 1 Domain or Low on 2 or More Domains: What Does this Mean?*

In order to better understand EDI results, two key summary measures of vulnerability are calculated based on the five domains of development.

##### **Vulnerable on 1 or More Domains**

Children who score below the most vulnerable cut-point on 1 out of 5 domains are considered to be **vulnerable on 1 or more domains**.

##### **Vulnerable on 2 or More Domains**

Children who score below the most vulnerable cut-point on **2 or more domains** are at an elevated risk for developmental difficulties and may experience on-going social, emotional, behavioural and/or academic problems.

#### *Low on 1 or Low on 2 Domains: What is the Difference?*

Children who score low on 1 domain are vulnerable in that domain and may require additional support to catch up with their peers. Children who score low on 2 or more domains are experiencing serious developmental issues. Longitudinal research in BC has shown that increasing numbers of vulnerabilities across the five EDI domains predicts an increasing probability of failure to achieve basic competencies by Grade Four.

Table 2 shows the percent of children by EDI domain that scored below the vulnerability cut-points and the number and percent of children that scored below the vulnerability cut-points on two or more of the EDI domains. More tables by municipality and neighbourhoods are shown on pages 7 and 8.

Table 2.

## *Number and Percent of Children Falling Below the Most Vulnerable Cut-Points*

EDI Domain	Halton					
	2003		2006		2009	
	Num	Pct	Num	Pct	Num	Pct
Physical Health and Well-Being	357	8.4	558	12.6	628	12.2
Social Competence	353	8.3	350	7.9	382	7.4
Emotional Maturity	400	9.5	403	9.1	452	8.8
Language and Cognitive Development	395	9.3	304	6.9	292	5.7
Communication and General Knowledge	331	7.8	424	9.6	440	8.6
Vulnerable on 1 or more domains	1000	23.8	1122	25.5	1220	23.9
Vulnerable on 2 or more domains	469	11.2	503	11.4	547	10.7



## Table 2: What to Look For and Why?

1. Look at the numbers and percents in the table. Higher numbers and percents are less favourable as they indicate there are more children who do not have the developmental skills they need as they begin school.
2. Look to see if the number and percent of vulnerable children has changed across the years. There may be little change in the percent but large changes in the number of vulnerable children. For example, Halton had 1000 vulnerable on 1 or more domains in 2003; in 2009, 1220 were identified as vulnerable. This represents approximately a 17% increase in the number of vulnerable children. The Census of Canada also reports a 17% increase in Halton's child populations suggesting that the 17% growth in the number of vulnerable children matches Halton's population growth.


Table 3 shows the vulnerability rates across the four Halton municipalities. There are only small differences in vulnerability at a municipal level.



Table 3.

***Number and Percent of Children Falling Below the Developmentally Vulnerable Cut-Points by Municipality***

EDI Domain	Burlington						Oakville					
	2003		2006		2009		2003		2006		2009	
	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct
Physical Health and Well-Being	130	8.7	184	12.5	191	11.6	119	7.5	192	12.2	194	11.0
Social Competence	158	10.5	115	7.8	122	7.4	92	5.8	116	7.3	124	7.0
Emotional Maturity	144	9.6	141	9.6	141	8.5	133	8.4	141	8.9	156	8.9
Language and Cognitive Development	167	11.2	98	6.6	102	6.2	110	6.9	95	6.0	86	4.9
Communication and General Knowledge	125	8.3	146	9.9	146	8.8	102	6.4	152	9.6	159	9.0
Vulnerable on 1 or more domains	398	26.7	371	25.3	395	24.0	320	20.3	393	25.0	400	23.0
Vulnerable on 2 or more domains	183	12.3	171	11.6	174	10.6	140	8.9	179	11.4	180	10.3

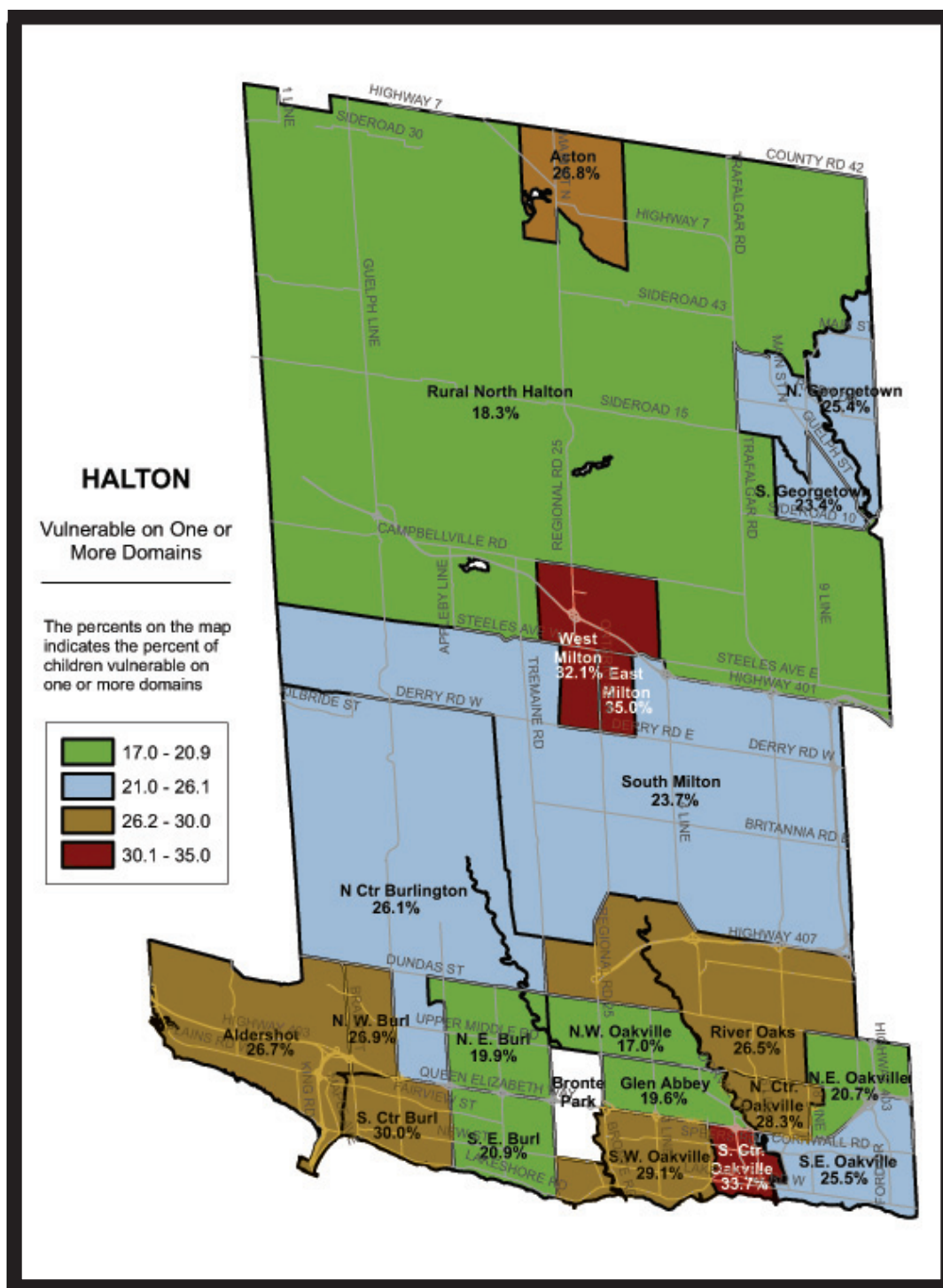


EDI Domain	Milton						Halton Hills					
	2003		2006		2009		2003		2006		2009	
	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct	Num	Pct
Physical Health and Well-Being	34	9.6	55	9.6	134	14.1	67	9.4	116	16.2	104	14.3
Social Competence	25	7.0	45	7.8	78	8.2	70	9.9	62	8.7	53	7.3
Emotional Maturity	38	10.8	45	7.9	84	8.9	77	10.9	65	9.1	68	9.4
Language and Cognitive Development	44	12.4	51	8.9	67	7.1	67	9.4	47	6.6	31	4.3
Communication and General Knowledge	31	8.7	46	8.0	83	8.7	67	9.4	66	9.2	49	6.7
Vulnerable on 1 or more domains	90	25.8	132	23.2	244	25.8	172	24.3	191	26.9	169	23.5
Vulnerable on 2 or more domains	44	12.6	60	10.5	116	12.3	90	12.7	77	10.9	73	10.2

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Map 1 shows the percent of children vulnerable on one or more EDI domains. The lowest rate of vulnerability is found in the neighbourhood of North West Oakville (17%) and the highest rate is found in East Milton (35%). The percents on the map indicate the percent of Halton children who are vulnerable on one or more domains in 2009.

 Map 1.  
***Percent of Children Vulnerable on 1 or More EDI Domains: Halton 2009***





## Defining Developmentally Strong

### Developmentally Strong Cut-Point

This cut-point is the EDI score that distinguishes the top 25 percent of children in Halton from the other 75 percent. Children who score above this cut-point are doing well in a specified area of development or identified EDI domain. Generally speaking, there is not a concern for later developmental difficulties for these children and they are referred to as developing well in the identified EDI domain. Table 4 shows the percent of children by EDI domain that scored above the Developmentally Strong cut-points. In addition, the number and percent of children that scored above the Developmentally Strong cut-points on two or more of the EDI domains are shown.

Table 4.

### *Number and Percent of Children Falling Above the Developmentally Strong Cut-Points*

EDI Domain	Halton					
	2003		2006		2009	
	Num	Pct	Num	Pct	Num	Pct
Physical Health and Well-Being	2221	52.5	1539	34.8	1835	35.7
Social Competence	758	17.9	773	17.4	928	18.0
Emotional Maturity	1018	24.1	989	22.4	1210	23.6
Language and Cognitive Development	680	16.1	872	19.7	1475	28.7
Communication and General Knowledge	2063	48.7	1606	36.3	1784	34.7
Developmentally Strong on 1 or more domains	2931	69.9	2630	59.8	3159	61.9
Developmentally Strong on 2 or more domains	1930	46.0	1587	36.1	1991	39.0



### Table 4: What to Look For and Why?

1. Look at the numbers and percents in the table. Higher numbers and percents are favourable as this indicates that more children have good developmental skills as they begin school.
2. Examine these results in the same manner as examining the most vulnerable results.
3. Look at the change in the percent of children in the Developmentally Strong categories across the three time points.



## DISTRIBUTION OF SCORES: EDI DOMAINS AND PERCENTILES

It is important to look at the distribution of EDI scores to understand how many children are at the low, middle or high end of the developmental continuum. The example below is a representation of the distribution of vulnerability in children across Ontario. We can use the provincial average as a reference to see how Halton is doing in comparison to the province. Figures 1 - 5 show the distribution of scores in Halton and the four municipalities, by Most Vulnerable (lowest 10<sup>th</sup> percentile), At-Risk (11<sup>th</sup> to 25<sup>th</sup> percentile), Developing Well (26<sup>th</sup> to 74<sup>th</sup> percentile) and Developmentally Strong (top 25 percentile).



## Figures 1 - 5: What to Look For and Why?

Observe the percent of children in each category. Ideally, a community is expected to have 10% of children scoring in the lowest 10<sup>th</sup> percentile, 15% scoring in the 11<sup>th</sup> – 25<sup>th</sup> percentile, 50% scoring in the 26<sup>th</sup> – 74<sup>th</sup> percentile and 25% of children scoring at the 75<sup>th</sup> percentile and above.

The distribution of scores for your municipality is unlikely to fall as expected. When examining the distribution, look for over and under-representations of scores along the continuum. For example, the number in the **red** area represents the percent of children in the most vulnerable category. If this value is greater than 10 percent, then you have **more 'vulnerability'** than expected. The number in the **gold** area represents the percent of children at-risk. If this value is less or greater than 15 percent, then you have **fewer or more children 'at-risk'** than expected. The number in the **blue** area represents the percent of children who are developing well. If this value is less or greater than 50 percent, then you have **fewer or more children who are 'developing well'** than expected. The number in the **green** area represents the percent of children who are developmentally strong. If this value is less or greater than 25 percent, then you have **fewer or more children who are 'developmentally strong'** than expected.

Figure 1.

### Halton Region - Percent of Children by Percentile Ranges and by EDI Domains (2009)

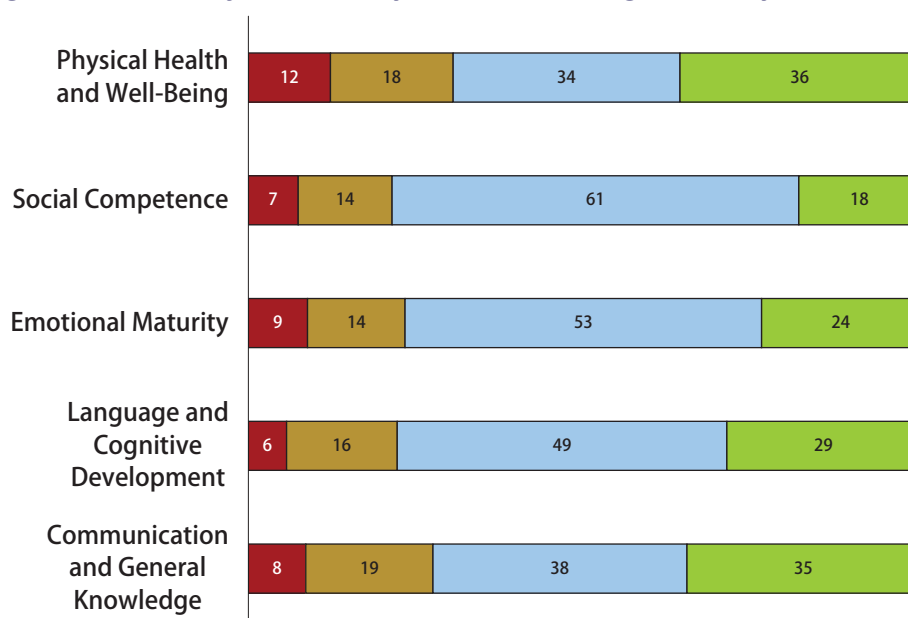




Figure 2.  
**Burlington - Percent of Children by Percentile Ranges and by EDI Domains (2009)**

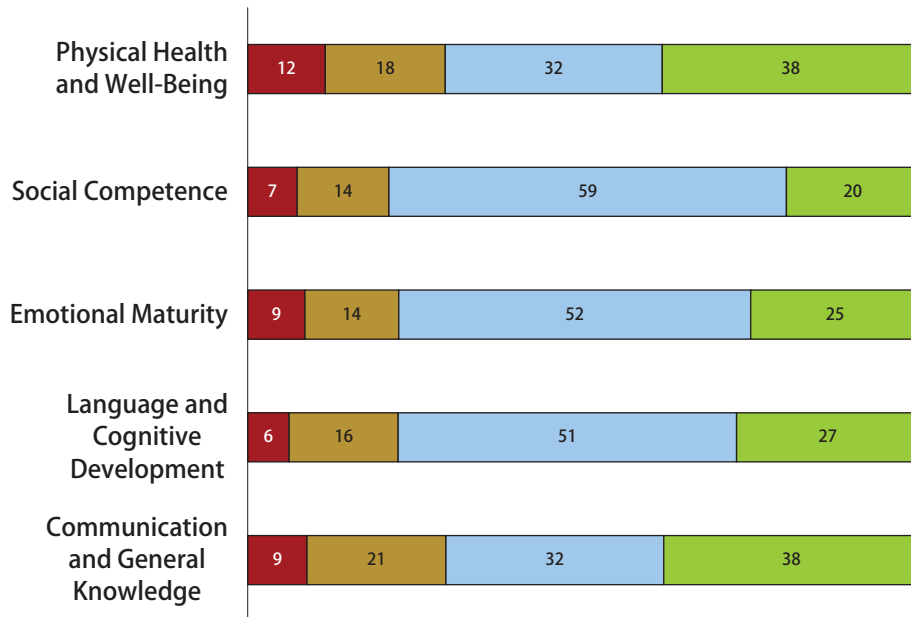


Figure 3.  
**Oakville - Percent of Children by Percentile Ranges and by EDI Domains (2009)**



**Figure 4.**  
***Milton - Percent of Children by Percentile Ranges and by EDI Domains (2009)***



**Figure 5.**  
***Halton Hills - Percent of Children by Percentile Ranges and by EDI Domains (2009)***

